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## COWPEA SEED.

The continuous wet weather of the autumn of 1906 worked an especial hardship to farmers in connection with the various kinds of agricultural seeds set aside for this year's planting. This is particularly true with reference to seed of the cowpea, the principal leguminous, hay, and green-manuring crop in the States bordering on the Gulf and along the Atlantic coast as far north as Virginia, the excessive rainfall causing the seeds to mold and soften.

During ordinary seasons cowpea seed sells for from \$1.50 to \$2 a bushel, but this year it has readily brought from \$3 to \$3.50 a bushel. Notwithstanding this high price, the farmer has found that the vitality of the seed has become so impaired that only a very small percentage has germinated, and in consequence of this poor quality of seed the crops grown have been thin and most unsatisfactory.

As red clover and alfalfa are not generally grown in the South and the maintenance of profitable agriculture and soil fertility is largely dependent upon cowpeas, this condition has entailed very serious consequences on many southern farms.

The Seed Laboratory of the Bureau of Plant Industry of the United States Department of Agriculture has recently collected samples of cowpea seed from the States of North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas, and Tennessee, to the number of 3,706 packages, and these samples have been carefully tested for vitality. The results obtained have been startling.

While a good grade of seed should show a germination of from 95 to 98 per cent, the seed from four States only—Arkansas, Tennessee, Louisiana, and Florida—showed an average germination of as much as 60 per cent, and only four varieties of cowpeas contained as many as sixty live seeds in each hundred—the Iron, Taylor, Whippoorwill, and New Era varieties. In the remaining five States from which samples were secured and with the ten or more staple varieties of cowpeas not named above, the average percentage of germination reached from 49 to 59 per cent only.

In these tests the Iron variety, which stood first, showed a general average of 79.2 per cent, while the Unknown variety averaged but 52 per cent, the Brown Eye less than 53 per cent, and the Black only 53.6 per cent. After the Iron variety the next best record was made by the Taylor variety with 68.8 per cent, and after that the Whippoorwill with an average germination of 66.7 per cent. Next came the New Era variety with a general average of 64.2 per cent, while the fifth on the list, the Clay variety, dropped to 58.7 per cent in these tests, and the Black Eye and the Red Ripper showed 57.5 and 56.9 per cent, respectively.

According to the figures obtained in connection with the tests mentioned, the Whippoorwill is the most popular variety, with the Clay second and the Unknown third.

Farmers are urged to test seed before sowing in order to determine its vitality and in this way avoid disappointment and serious loss. This testing can easily be done by means of two dinner plates and a strip of cotton flannel. One hundred seeds should be counted out from the package of seed which it is proposed to sow, taking the seeds just as they come without making any selection. These seeds should be placed on one end of the wet flannel and laid in one of the plates, while the other end of the cloth and the other plate should be placed over them. On the third, fourth, and fifth days the number of seeds which have sprouted should be counted and in this simple way the percentage of seeds which would sprout if sown in the ground can be definitely ascertained.



